ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Replacement of Part 90 by Part 88	)	
to Revise the Private Land Mobile	)	
Radio Services and Modify the	)	
Policies Governing Them	)	
	)	
and	)	PR Docket No. 92-235
	)	
Examination of Exclusivity and	)	
Frequency Assignment Policies	)	
of the Private Land Mobile	)	
Radio Services	)	

To: The Commission

PETITION FOR RECONSIDERATION

E.F. Johnson Company ("E.F. Johnson" or the "Company"), by its attorneys, pursuant to Section 1.429 of the Rules and Regulations of the Federal Communications Commission ("FCC or "Commission"), 47 C.F.R. § 1.429, hereby submits its Petition for Reconsideration of the Report and Order adopted in the above-referenced proceeding[1] by which the Commission adopts rule changes to the Private Land Mobile Radio ("PLMR") services.

I. INTRODUCTION

E.F. Johnson is a leading designer and manufacturer of radio communications and specialty communications products for commercial and public safety use. Founded over seventy

[1] Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Radio Services, PR Docket No. 92-235, Report and Order and Further Notice of Proposed Rule Making, 60 FR 37148 (1995) ("Report and Order").

years ago as an electronic components manufacturer, E.F. Johnson entered the radio communications equipment market in the late 1940's and is one of the three largest providers of land mobile radio systems in the United States. It produces base stations, vehicular mounted and portable transmitters that operate in various portions of the radio spectrum that are used by a variety of entities requiring communications capabilities. E.F. Johnson is a party to a licensing agreement with Securicor, Ltd. ("Securicor"), under which the Company manufactures 5 kHz Linear Modulation ("LM") technology equipment for use at 220 MHz. E.F. Johnson participated in this proceeding, filing comments in response to the Commission's Notice of Proposed Rule Making.[2]

In the Report and Order the Commission decides, among other things, to abandon its well-founded initial proposal to list channels every 5 kHz in the 150-174 MHz band (the "VHF band"), and instead adopts a channelization plan which lists channels every 7.5 kHz in the VHF band. As a major manufacturer and supplier of 5 kHz LM technology equipment, the Commission's decision to abandon 5 kHz channel spacing in the VHF band may ultimately impact E.F. Johnson's ability to sell its products. More importantly, the Commission's decision with respect to this issue results in an ineffective use of spectrum, and is inadequately justified by the Commission in its Report and Order. Accordingly, E.F. Johnson respectfully requests that the Commissions reconsider its decision to abandon 5 kHz channel spacing in the VHF band in favor of less spectrally efficient 7.5 kHz spacing.

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2 Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, PR Docket No. 92-235, Notice of Proposed Rule Making, 7 FCC Rcd 8105 (1992) ("NPRM").

II. DISCUSSION

The Commission states in the Report and Order that its "primary goal in this proceeding has been to develop an overall strategy for using the spectrum in the PLMR allocation more efficiently to meet future communications requirements."[3] The Commission's decision to space channels in the VHF band at 7.5 kHz instead of 5 kHz runs directly counter to this goal by creating inefficient "white spaces" in the VHF band and thereby wasting spectrum. Thus, a 5 kHz channelization plan would create significantly greater capacity than a 7.5 kHz channelization plan. A 5 kHz plan would enable a greater number of users to make use of the spectrum, while also benefiting existing users by allowing them to operate their businesses more efficiently.

The Commission acknowledges that "[c]hannelizing at 5 kHz would provide a significant increase in the number of available channels and recognize the latest advancements in land mobile technology"[4] and, as already noted, the Commission fully supported 5 kHz spacing in the VHF band in the Notice of Proposed Rule Making in this proceeding. There, the Commission stated that its "proposed standards are designed to promote technical flexibility, allowing the economic and public safety considerations to determine the best technology for each application, while at the same time requiring that PLMR allocations be used efficiently."[5] In the Report and Order, however, the Commission inexplicably backs away from its original assessment of the efficiency and appropriateness of 5 kHz channelization.

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3 Report and Order at para. 2.

4 Id. at para. 25.

5 NPRM at para. 8.

The Commission abandons its proposal to implement a 5 kHz channelization plan based upon its concerns that such a plan "would exclude traditional FM technologies and would be substantially narrower than channels employed by most mobile operations."[6] However, this rationale for rejecting a 5 kHz channel spacing plan in the VHF band does not appear to take into account the Commission's decision to permit the aggregation of narrowband channels to allow the use of wideband equivalent technologies such as time division multiple access ("TDMA"). Because the Commission is allowing aggregation, the ability to utilize wideband equivalent technologies is the same whether the channels are spaced at 7.5 kHz or at 5 kHz. At 5 kHz, however, far less spectrum is lost to "white space" than at 7.5 kHz. Moreover, whether the channel spacing is 7.5 kHz or 5 kHz, the modulation index required to meet the necessary emission mask would preclude traditional FM technologies from providing satisfactory audio quality for any reasonably viable communication system. Therefore, the end result of the Commission's decision to reject its own channelization plan is that the public will be deprived of the greatest possible use of the spectrum, without any accompanying benefits.

It should also be noted that, like a 7.5 kHz plan, a 5 kHz channelization plan could be implemented utilizing existing channel centers. As demonstrated in Exhibit A hereto, 5 kHz channelization and 7.5 kHz channelization both utilize existing channel centers. However, 5 kHz channelization creates a greater number of channels and eliminates wasted spaces between channels. A 5 kHz channelization plan clearly constitutes a more efficient use of spectrum than 7.5 kHz channelization.

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6 Report and Order at para. 25.

While the Commission also attempts to support a 7.5 kHz channelization plan by describing it as "technology neutral,"[7] stating that its "approach does not favor any particular type of land mobile technology,"[8] nowhere in the Commission's stated objectives for this proceeding has the Commission specified "technology neutrality" as a goal. Rather, the Commission has repeatedly emphasized that the overriding goal of this proceeding is to encourage the efficient use of spectrum.[9] The primary objective of this proceeding is to promote the efficient use of spectrum by the PLMR services, not to attempt to satisfy the greatest number of equipment manufacturers. Moreover, in light of the fact that aggregations of channels is permitted, a 5 kHz channelization plan will not be any more limiting in terms of utilizing different technologies than a 7.5 kHz channelization plan would be.

In other contexts, the Commission has recognized that 5 kHz technology is the most spectrally-efficient technology currently deployed. Thus, when the Commission adopted a channelization plan for the 220-222 MHz band, it chose 5 kHz channel spacing.[10] The Commission noted in that proceeding that "[d]ividing the band into two hundred 5 kHz paired channels is consistent with our objective of providing spectrum for the development of spectrally efficient narrowband land mobile radio systems."[11] 5 kHz LM technology uses the latest digital processing and linear radio techniques to provide superior voice quality and high speed data

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7 Id. at para. 29.

8 Id.

9 See, e.g., id. at para. 3.

10 Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Services, Report and Order, 6 FCC Rcd 2356 (1991).

11 Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Services, Notice of Proposed Rule Making, 4 FCC Rcd 8593 (1989).

processing. The Commission's decision in the Report and Order ignores its own conclusions concerning the efficiency of 5 kHz technology. A 7.5 kHz channelization plan will not permit 5 kHz technologies to realize their full potential in the land mobile spectrum.

III. CONCLUSION

The Commission's primary goal in this proceeding is to promote the efficient use of spectrum. A 5 kHz channel spacing plan in the VHF band is a far more efficient use of spectrum than a 7.5 kHz channel spacing plan. A 5 kHz channelization plan will permit the use of many different technologies, while creating greater capacity for users than a 7.5 kHz channelization plan.

WHEREFORE, THE PREMISES CONSIDERED, E.F. Johnson Company hereby submits the foregoing Petition for Reconsideration and urges the Commission to reconsider its newly-adopted rules consistent with the foregoing.

Respectfully submitted,

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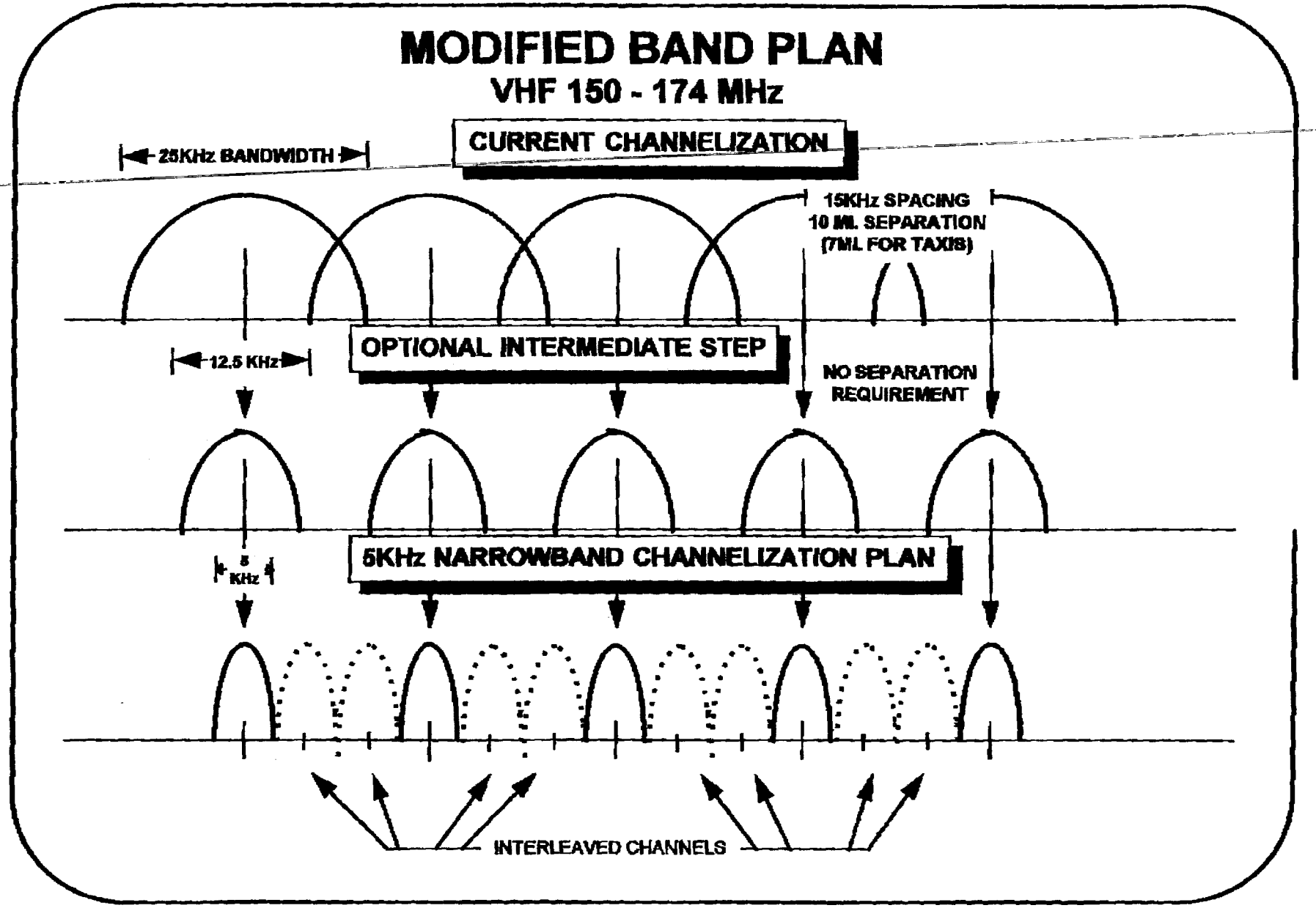
EXHIBIT A


MODIFIED BAND PLAN
VHF 150 - 174 MHz
25KHz BANDWIDTH
CURRENT CHANNELIZATION
15KHz SPACING
10 Mi. SEPARATION
(7Mi. FOR TAXIS)
12.5 KHz
OPTIONAL INTERMEDIATE STEP
NO SEPARATION
REQUIREMENT
5 KHz
5KHz NARROWBAND CHANNELIZATION PLAN
INTERLEAVED CHANNELS